

Application N . : 09/509,377
 Filing dat : 08/28/2000
 First named inventor: SERGEY MATASOV, M.D.
 Confirmation No.: 09553E

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AMENDMENT

TECHNOLOGY CENTER R3700

Sir:

In response to the Examiner's First Report of January 31, 2002, please amend the above-identified application as follows:

In the Specification:

1. Please replace 4 paragraphs (page 1, line 1 - page 2, line 2) with the following 8 rewritten paragraphs (page 1, line 1 - page 2, line 1):

This is the continuation of application PCT/LV98/00006 based on the priority applications P-97-190 from 03.10.97 (LV), P-98-188 from 23.09.98 (LV) and inventor's certificate № 1522466 from 21.08.78 (SU).

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention pertains to the field of medicine, namely to colonoscopy and enteroscopy, but can also be used for industrial endoscopes.

2. Description of Background Art

The common feature of the known patents and of the solution proposed in this application is the presence of the everted tube, which transportates endoscopic tube. The everted tube invaginates endoscopic tube into the explored channel and therefore was named as invaginator by me. For colonoscopy and enteroscopy one or another combination of invaginator with endoscopic tube must ensure the constantly opened objective of endoscopic tube. This purpose is pursued by the devices under the patents US 4,321,915 and US 4,615,331.

In these devices invaginator is placed on the endoscopic tube by long layers in parallel to tube. After pressure feeding into the everted part of invaginator the inner part of invaginator tightly clings to the endoscopic tube. As the result, the length of endoscopic tube entered into the explored channel, is twice longer as the length of the everted part of invaginator.

Invaginator according to the patent US 4,321,915 is mono-layered. Its doubled lag from endoscopic tube the authors suggest to remove by the periodical change of pressure and vacuum and by extracting of endoscopic tube till its objective coincides with the place of eversion of invaginator. But invaginator is the thin-walled tube. As a result the endoscopic tube will be extracted together with invaginator. Besides, it seems to be complicated to make the exact coincidence of objective with the place of eversion of invaginator.

Invaginator according to the patent US 4,615,331 is multi-layered, in other words it is made in the shape of overlying layers, whose length as one can see on the drawings, is 7 times larger than the diameter of endoscopic tube. Invagination of endoscopic tube with its help will be uneven, as the place of eversion of invaginator will be periodically moved away from the objective. The uneven introduction of endoscopic tube will complicate the examination. Another, more important defect of multi-layered invaginator - the inconsequent unreeling of its layers. The premature everting of lower layer will exclude or complicate everting of the others.

The named drawbacks exclude the possibility of clinical application of the known invaginators for the transportation of endoscopic tube.

The main drawback of widely applied manual colonoscopes - difficulties of their introducing.